


receiving said fluids and at least one splitter plate having a trailing edge and configured to create corners in said mixing chamber and to create a shear layer between said fluids;

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- (b) separating said fluids on entrance into said mixing chamber by said splitter plate creating primary vortices at said trailing edge of said splitter plate;
  - (c) forcing said shear layer between said fluids through the periodic application of a narrow frequency band, said shear layers having a specific receptivity to said narrow frequency band, and independent of said fluid's velocity into said mixing chamber; and
  - (d) creating enhanced streamwise vortices for enhanced mixing through the interaction between corner vortices and said primary vortices.

### Explanation for the references

~~There are too much information in the references. To make it easier for you to find out the difference between the two inventions, the most important and relevant information from the references are cited here.~~

- H. E. Fiedler & H. H. Fernholtz (1990) "On management and control of turbulent shear flows". *Prog. Aerospace Sci.* vol 27, pp305-387.

#### 4.4.3. Active control (on Page 335-336 and Fig. 15a)

Here the achievement of forcing is a local widening of flow of order 100%. However, the widening with forcing in Fig. 7g of Wang (2000) is at least 600% (achieving the limitation) compared with Fig. 7a of Wang (2000).

- H. E. Fiedler & P. Mensing (1985) The plane turbulent shear layer with periodic excitation". *Journal of Fluid Mechanics*, vol 150, pp281-309.